Safety Data Sheet

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Substance name: **85 Plus! Diesel Fuel Catalyst**
Code: 829052
Additional identification: 85 Plus! Diesel Fuel Enhancer
REACH Registration Number: Not applicable
Issue date: 19-Sep-2019

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Fuel additive

Uses advised against: Other uses are not recommended unless an assessment demonstrates potential exposures will be controlled.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier:
RED LINE SYNTHETIC OIL
6100 Egret Court
Benicia, CA 94510

Technical Information: 1-707-745-6100
SDS Information:
URL: www.Phillips66.com/SDS
Phone: 800-762-0942
Email: SDS@P66.com

1.4. Emergency telephone number

CHEMTREC Global +1 703 527 3887
CHEMTREC UK +(44)-870-8200418
CHEMTREC Germany 0800-181-7059
CHEMTREC France +(33)-975181407
CHEMTREC Spain 900-868538
CHEMTREC Belgium +(32)-28083237
CHEMTREC Norway (Oslo) +(47)-21930678
CHEMTREC Finland (Helsinki) +(358)-942419014
CHEMTREC Sweden (Stockholm) +(46)-852503403

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP Classification (EC No 1272/2008)
H412 -- Hazardous to the aquatic environment, chronic toxicity -- Category 3

2.2. Label elements

WARNING

H412 - Harmful to aquatic life with long lasting effects
P273 - Avoid release to the environment
P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other hazards

Does not meet the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent, very bioaccumulative (vPvB) substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical Name	CASRN	EINECS	REACH Registration No	Concentration[1]	Classification[2]
Distillates, petroleum, hydrotreated heavy paraffinic	64742-54-7	265-157-1	01-2119484627-25	<45	-
2-Ethylhexyl nitrate	27247-96-7	248-363-6	-	20 - 24.99	H411
Distillates, petroleum, hydrotreated heavy naphthenic	64742-52-5	265-155-0	01-2119467170-45	<10	H350
Naphtha, petroleum, hydrotreated heavy	64742-48-9	265-150-3	01-2119484819-18	5 - 7.49	H226, H304
2-Ethylhexanol	104-76-7	203-234-3	-	2.5 - 4.99	H303, H304, H315, H319, H332, H335, H412

[1] All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
[2] Regulation EC 1272/2008.

SECTION 4: First aid measures

4.1. Description of first aid measures

Eye Contact: If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

Skin Contact: Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention.

Inhalation: First aid is not normally required. If breathing difficulties develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. Seek immediate medical attention.

Ingestion: First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Effects of overexposure may include rapid heartbeats, signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue). Prolonged or repeated contact may dry skin and cause irritation. Inhalation of oil mists or vapours generated at elevated temperatures may cause respiratory irritation. Accidental ingestion can result in minor irritation of the digestive tract, nausea and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician: Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212°F / 100°C. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards: Combustible. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). May create vapour/air explosion hazard if heated. This product will float and can be reignited on surface water. Vapours are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire.

Hazardous Combustion Products: Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of sulphur, nitrogen or phosphorus may also be formed.

5.3. Special protective actions for fire-fighters

For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapours and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely. Avoid spreading burning liquid with water used for cooling purposes.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Combustible. Keep all sources of ignition away from spill/release. The use of explosion-proof electrical equipment is recommended. Stay upwind and away from spill/release. Avoid direct contact with material. For large spillages, notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorised personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

6.2. Environmental precautions

Stop and contain spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorised drainage systems, and natural waterways. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water notify appropriate authorities and advise shipping of any hazard.

6.3. Methods and material for containment and cleaning up

Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g. skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken. See Section 13 for information on appropriate disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

Spills will produce very slippery surfaces. Open container slowly to relieve any pressure. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes for specific bonding/grounding requirements). Do not enter confined spaces such as tanks or pits without following proper entry procedures. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

7.2. Conditions for safe storage, including any incompatibilities

Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated area away from heat and all sources of ignition. Post area "No Smoking or Open Flame." Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet Country or Committee standards and appropriate fire codes.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose

such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

7.3. Specific end use(s)

Refer to supplemental exposure scenarios if attached.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Chemical Name	ACGIH	Ireland	United Kingdom	Phillips 66
Distillates, petroleum, hydrotreated heavy paraffinic	TWA-8hr: 5 mg/m^3 STEL: 10 mg/m^3 as Oil Mist, if Generated	---	---	---
Distillates, petroleum, hydrotreated heavy naphthenic	TWA-8hr: 5 mg/m^3 STEL: 10 mg/m^3 as Oil Mist, if Generated	---	---	---
Naphtha, petroleum, hydrotreated heavy	---	---	---	TWA-8hr: 200 mg/m^3 Skin
2-Ethylhexanol	---	TWA-8hr: 1 ppm TWA-8hr: 5.4 mg/m^3 STEL: 3 ppm STEL: 16.2 mg/m^3	TWA-8hr: 1 ppm TWA-8hr: 5.4 mg/m^3	---

STEL = Short Term Exposure Limit (15 minutes); TWA = Time Weighted Average (8 hours); --- = No Occupational Exposure Limit
Note: Local regulations may be more stringent than regional or national requirements.

Biological Limit Values

--- = No Biological Limit Value
Note: None.

Relevant DNEL and PNEC: No information available

8.2. Exposure controls

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

Eye/Face Protection: The use of eye protection that meets or exceeds EN 166 is recommended to protect against potential eye contact, irritation, or injury. Depending on conditions of use, close fitting eye protection and a face shield may be necessary.

Skin/Hand Protection: The use of gloves impervious to the specific material handled that comply with EN 374 is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Suggested protective materials: Nitrile rubber

Respiratory Protection: Where there is potential for airborne exposure above the exposure limit an approved air purifying respirator equipped with Type A, organic gases and vapours filter (as specified by the manufacturer) in combination with Type P2 - Medium efficiency particle filters may be used.

A respiratory protection programme that follows recommendations for the selection, use, care and maintenance of respiratory protective devices in EN 529:2005 should be followed whenever workplace conditions warrant a respirator's use. Air purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration (as directed by regulation or the manufacturer's instructions), in oxygen deficient (less than 19.5 percent oxygen) situations, or under conditions that are immediately dangerous to life and health.

Environmental Exposure Controls: Refer to Sections 6, 7, 12 and 13.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Brown, Transparent
Physical Form:	Liquid
Odour:	Pungent
Odour Threshold:	Not determined
pH	Not applicable
Melting/Freezing Point:	Not determined
Initial Boiling Point/Range:	N/D
Flash Point:	88 °C; (ASTM D93)
Evaporation Rate (nBuAc=1):	Not determined
Flammability (solid, gas):	Not applicable Combustible
Upper Explosive Limits (vol % in air):	N/D
Lower Explosive Limits (vol % in air):	N/D
Vapour Pressure:	N/D
Relative Vapour Density (air=1):	>1
Relative Density (water=1):	0.9 @ 60ºF (15.6ºC)
Solubility (ies):	Solubility in water: Negligible
Partition Coefficient (n-octanol/water) (Kow):	Not determined
Auto-ignition Temperature:	N/D
Decomposition Temperature:	Not determined
Viscosity:	5.1 cSt @ 100°C; 22.3 cSt @ 40°C
Explosive Properties:	Not determined
Oxidising Properties:	Not determined

9.2. Other information

Pour Point:	Not determined
Bulk Density:	7.50 lbs/gal

SECTION 10: Stability and reactivity

10.1. Reactivity — Not chemically reactive.

10.2. Chemical stability — Stable under normal ambient and anticipated conditions of use.

10.3. Possibility of hazardous reactions — Hazardous reactions not anticipated.

10.4. Conditions to avoid — Extended exposure to high temperatures can cause decomposition. Avoid all possible sources of ignition.

10.5. Incompatible materials — Avoid contact with strong oxidizing agents and strong reducing agents.

10.6. Hazardous decomposition products — Not anticipated under normal conditions of use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Substance / Mixture

Acute Toxicity	Hazard	Additional Information	LC50/LD50 Data
Inhalation	Unlikely to be harmful		>5 mg/L (mist, estimated)
Dermal	Unlikely to be harmful		> 2 g/kg (estimated)

Oral	Unlikely to be harmful		> 5 g/kg (estimated)

Likely Routes of Exposure: Inhalation, eye contact, skin contact

Aspiration Hazard: Not expected to be an aspiration hazard.

Skin Corrosion/Irritation: Causes mild skin irritation. Repeated exposure may cause skin dryness or cracking.

Serious Eye Damage/Irritation: Causes mild eye irritation.

Skin Sensitisation: No information available on the mixture, however none of the components have been classified for skin sensitisation (or are below the concentration threshold for classification).

Respiratory Sensitisation: No information available.

Specific Target Organ Toxicity (Single Exposure): No information available on the mixture, however none of the components have been classified for target organ toxicity (or are below the concentration threshold for classification).

Specific Target Organ Toxicity (Repeated Exposure): No information available on the mixture, however none of the components have been classified for target organ toxicity (or are below the concentration threshold for classification).
Carcinogenicity: No information available on the mixture, however none of the components have been classified for carcinogenicity (or are below the concentration threshold for classification).

Germ Cell Mutagenicity: No information available on the mixture, however none of the components have been classified for germ cell mutagenicity (or are below the concentration threshold for classification).

Reproductive Toxicity: No information available on the mixture, however none of the components have been classified for reproductive toxicity (or are below the concentration threshold for classification).

Information on Toxicological Effects of Components

Distillates, petroleum, hydrotreated heavy paraffinic
Carcinogenicity: This oil has been highly refined by a variety of processes to reduce aromatics and improve performance characteristics. It meets the IP-346 criteria of less than 3 percent PAH's and is not considered a carcinogen by the International Agency for Research on Cancer.

Naphtha, petroleum, hydrotreated heavy
Reproductive Toxicity: Hydrodesulphurized kerosene applied to the skin of female rats at 494, 330, or 165 mg/kg daily for 7 consecutive weeks (premating, mating, and gestation), or for 8 consecutive weeks in males did not result in systemic, reproductive, or developmental toxicity.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

12.2. Persistence and degradability

The hydrocarbons in this material are not readily biodegradable, but since they can be degraded by microorganisms, they are regarded as inherently biodegradable.

12.3. Bioaccumulative potential

Log Kow values measured for the hydrocarbon components of this material are greater than 5.3, and therefore regarded as having the potential to bioaccumulate. In practise, metabolic processes may reduce bioconcentration.

12.4. Mobility in soil

Volatilisation to air is not expected to be a significant fate process due to the low vapour pressure of this material. In water, base oils will float and spread over the surface at a rate dependent upon viscosity. There will be significant removal of hydrocarbons from the water by sediment adsorption. In soil and sediment, hydrocarbon components will show low mobility with adsorption to sediments being the predominant physical process. The main fate process is expected to be slow biodegradation of the hydrocarbon constituents in soil and sediment.

12.5. Results of PBT and vPvB assessment

Not a PBT or vPvB substance.

12.6. Other adverse effects
None anticipated.

German Water Hazard Information: hazard class 1 - low hazard to waters

SECTION 13: Disposal considerations

13.1. Waste treatment methods

European Waste Code: 13 08 99* (oil) wastes not otherwise specified

This material, if discarded as produced, would be considered as hazardous waste pursuant to Directive 2008/98/EC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.
This code has been assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste generators/producers are responsible for assessing the actual process used when generating the waste and it's contaminants in order to assign the proper waste disposal code.

This material under most intended uses would become "waste oils" due to contamination by physical or chemical impurities. Whenever possible, Directive 75/439/EEC suggests recycling of "waste oils" in accordance with current national and regional provisions.

Empty Containers: Container contents should be completely used and containers emptied prior to discard. Empty drums should be properly sealed and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with applicable regulations.

SECTION 14: Transport information

14.1. UN number	UN3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PETROLEUM DISTILLATES , 2-Ethylhexyl nitrate)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
14.5. Environmental hazards	Marine pollutant - Environmentally Hazardous
14.6. Special precautions for user	**Marine Pollutant:**
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EC 1272/2008 - Classification, labelling and packaging of substances and mixtures
EN166:2002 Eye Protection
EN 529:2005 Respiratory Protective devices
BS EN 374-1:2003 Protective gloves against chemicals and micro-organisms
Occupational Exposure Limits, Technical Rules for Dangerous Substances
Occupational Exposure Limits, Health and Safety Authority
Workplace Exposure Limits, EH40/2005, Control of Substances Hazardous to Health
Federal Water Act on the Classification of Substances Hazardous to Waters
Directive 2008/98/EC (Waste Framework Directive)

Export Rating: NLR (No Licence Required)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out for the substance/mixture.

SECTION 16: Other information

Issue date	19-Sep-2019
Status:	FINAL
Previous Issue Date:	13-Jun-2019
Revised Sections or Basis for Revision:	Product Name / Synonyms (Section 1)
Safety Data Sheet Number:	**829052**
Language:	BE

List of Relevant Hazard Statements:
H226 - Flammable liquid and vapour
H303 - May be harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H350 - May cause cancer
H411 - Toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects
Repeated exposure may cause skin dryness or cracking

Guide to Abbreviations:
ACGIH = American Conference of Governmental Industrial Hygienists; ADR = Agreement on Dangerous Goods by Road; BMGV = Biological Monitoring Guidance Value; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA = [US] Environmental Protection Agency; Germany-TRGS = Technical Rules for Dangerous Substances; IARC = International Agency for Research on Cancer; ICAO/IATA = International Civil Aviation Organisation / International Air Transport Association; INSHT = National Institute for Health and Safety at Work; IMDG = International Maritime Dangerous Goods; Irland-HSA = Ireland's National Health and Safety Authority; LEL = Lower Explosive Limit; MARPOL = Marine Pollution; N/A = Not Applicable; N/D = Not Determined; NTP = [US] National Toxicology Programme; PBT = Persistent, Bioaccumulative and Toxic; RID = Regulations Concerning the International Transport of Dangerous Goods by Rail; STEL = Short Term Exposure Limit; TLV = Threshold Limit Value; TRGS 903 = Technical rules for hazardous substances; TWA = Time Weighted Average; UEL = Upper Explosive Limit; UK-EH40 = United Kingdom EH40/2005 OEL; vPvB = very Persistent, very Bioaccumulative

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